

# Akron Engineering Bureau

## 2004 Annual Report



### City of Akron Department of Public Service

Donald L. Plusquellic  
Mayor

Gerald Holland  
Service Director

David J. Celik, P.E.  
City Engineer

Vision  
City Engineer  
Design Division  
Environmental Division  
Construction Division  
Administrative Services  
Revenue/Expenditures

To: Customers

From: David J. Celik, P.E.  
City Engineer



Re: **Akron Engineering Bureau, 2004**

Enclosed for your review and consideration is the 2004 Akron Engineering Bureau Annual Report.

2004 was highlighted by significant activity in design and construction of several major projects, including the High-Main Parking Deck to serve the new Main Library and commercial development in the downtown historic district. In total, we awarded \$33.9 million in construction contracts and paid out \$26.9 million in construction contract billings.

We achieved significant progress on our goals. Most notably, in workplace flexibility and cross-training of our employees.

Our participation in the World Class Organization (WCO) initiative continued last year. The draft Action Plan was found to be aligned with the WCO vision by the Continuous Improvement Team (CIT). It was then distributed to effected employee groups for comment.

The Engineering Bureau also completed work on an initial Resource Loading analysis and began work on a Balanced Scorecard. The Engineering Bureau is also represented on the Continuous Improvement Team.

The Engineering Bureau is prepared to meet the new challenges in 2005.



**CARNEGIE AVENUE BRIDGE OVER  
NESMITH LAKE**

# AEB VISION



## **Akron Engineering Bureau (AEB) Vision 2002**

**Our vision is to provide professional engineering services that meet the infrastructure needs of our customers by:**

Planning projects that meet the goals of the City.

Designing projects in a cost effective manner.

Constructing projects in compliance with the contract documents.

### **To reach this vision means:**

Utilizing the experience, education and training of our employees to create a more flexible work force.

Empowering our employees to manage projects more independently.

Use of innovative plan development, design and construction techniques to minimize project costs.

Maintaining the highest level of ethics and professionalism.

### **Long Term Vision Affirmation**

**We will affirm and re-enforce our vision by operating the AEB with the following philosophy:**

Reduce the need for supervision by creating additional Engineering Technician III and Civil Engineer III promotional opportunities, and filling those positions with capable and motivated employees who can independently coordinate all aspects of a project.

Assign employees based on:

- The overall needs of the AEB.
- The experience level necessary to administer the specific project.
- The opportunity to diversify the experience of the workforce.
- The expectation of minimizing project costs.

Rotate employees between the Design/Environmental Division and the Construction Division so that all employees become proficient in both project design and construction administration.

Maintain the proper balance between in-house design and consultant design.

Determine and monitor overhead rates including project development and programming costs in order to fully understand the cost-effectiveness of the AEB.

### **Administrative Services**

**Kenneth F. Kostura PE**  
(330) 375-2355 Fax (330) 375-2288  
kostuke@ci.akron.oh.us

### **Construction Division**

**James P. Weber PE**  
(330) 375-2740 Fax (330) 375-2344  
weberji@ci.akron.oh.us



### **City Engineer**

**David J. Celik PE**  
Department of Public Service  
Akron Engineering Bureau  
166 South High Street, Akron, Ohio 44308-1652  
(330) 375-2355 Fax (330) 375-2288  
AkronEngineering@ci.akron.oh.us

### **Design Division**

**Michael L. Madonio PE**  
(330) 375-2160 Fax (330) 375-2353  
madonmi@ci.akron.oh.us

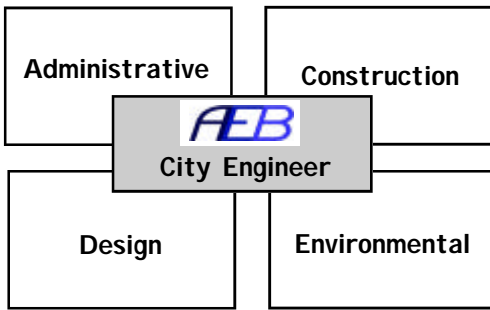
### **Environmental Division**

**Patrick D. Gsellman PE**  
(330) 375-2357 Fax (330) 375-2288  
gsellpa@ci.akron.oh.us

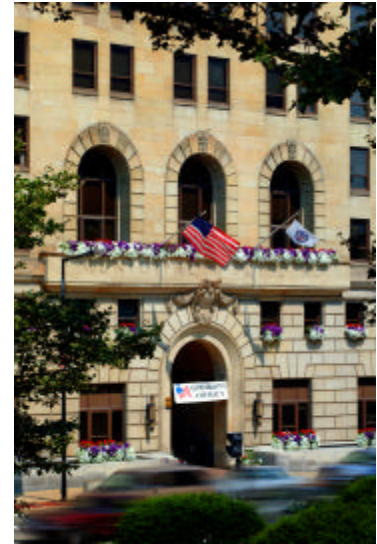


CAREY AVE. PEDESTRIAN BRIDGE





# City Engineer



## Core Functions

The Akron Engineering Bureau (AEB) is responsible for the planning, design and construction of the public improvement projects of the City of Akron. Our goal is to produce high quality projects on schedule and within budget. In 2004, the Akron Engineering Bureau awarded over \$33.9 million worth of public improvements. The Bureau also paid out over \$26.9 million in construction payments during the year. The types of projects include: street and sidewalk reconstruction, bridge maintenance and reconstruction; parks, playgrounds and athletic fields; building construction and rehabilitation and public utilities (water, storm and sanitary sewer system improvements).

AEB employees maintain cooperative working relationships with the public, City Council, the Administration, other City divisions, consulting engineering firms, utility company representatives, contractors, developers, suppliers and federal, state, county and other municipal agencies. While accomplishing our mission, the highest level of ethics and professionalism is maintained.

The Engineering Bureau continued its active participation in the World Class Organization (WCO) initiative in 2004. The City Engineer is a member of the Continuous Improvement Team (CIT) and Bureau employees have continued the work of the E3 Core Design Team.

In August of 2004 the draft Action Plan was presented to the CIT. The CIT found the draft Action Plan to be aligned with the WCO vision and recommended that the plan be distributed to effected employee groups. The draft plan was distributed and several Tool Box Talks were held in the fourth quarter of 2004. All the comments and questions on the plan were tabulated, categorized and discussed. This activity was completed in early 2005 and a final disposition will be available in May 2005. Based on the comments, input provided at the Tool Box Talks and direction from the Service Director, the proposed Action Plan is scheduled for completion in May 2005.

## 2004 Goals

Reduced our in-house costs by increasing flexibility of employees working for multiple divisions.

Implemented the first phase of the Customer Service Request system.

Completed the 2003 project manpower projections.

Conducted an in-house training seminar for 19 Project Managers for our consultant contract development process.

Assigned fifteen Engineering Technicians to the Construction Division from the Design and Environmental Divisions for the construction season.

Assigned six Engineering Technicians to the Design or Environmental Divisions for the winter season.

Assigned four Civil Engineers to the Construction Division from the Design and Environmental Divisions to be Resident Project Representatives in an effort to reduce construction administration costs and develop design skills.



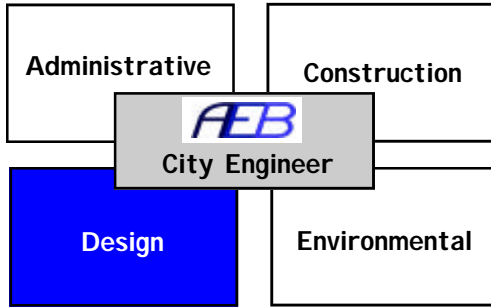
ED DAVIS COMMUNITY CENTER GYM FLOOR

## Service Levels

In 2004 the Engineering Bureau processed 324 contractor invoices for \$26.9 million, and 539 consulting invoices for \$5.7 million, totaling \$32.6 million.

The Engineering Bureau awarded and administered 43 construction contracts with 31 different contractors for a total of over \$33.9 million in 2004.

The Engineering Bureau attended 24 public meetings to inform the public about City projects and procedures.



# Design Division



## Core Functions

Programming/Budgeting  
 Detail Design  
 Project Management  
 Public Involvement  
 Transportation Program  
 Consultant Contract Administration  
 Standards and Specifications  
 Plan Review  
 Surveying  
 Mapping

### Subdivision and Plan Review



Jim Anderson Wayne Bachus Travis Capper Jeff Caston Andrew Davis Michelle DiFiore Rick Fischer  
 Bob Geiser Jason Harris Dennis Hawthorne Christine Jonke Randy Keirns Leah Lee Mike Madonio Bill  
 Magyar Bill Marras Beth Mettle Jeff Miller Dianne Reed Phil Rohr Chad Root Rob Scarlatelli Adam  
 Staller Sanford Taylor Michael Teodecki Don Vardon Jim Vechery David Wilkerson



# 2004 Goals

Conducted in-house AutoCAD training for eighteen employees by the end of January.

Provided monthly in-house training opportunities throughout the entire year for the Design staff on relevant topics.

Initiated a play equipment study that will organize and identify the criteria used to determine the acceptability of various play equipment systems.

## Major Accomplishments

Completed plans for the Middlebury Streetscape improvements in conjunction with the new grocery store development.

Completed plans for full improvements of Cuyahoga Street Phase 2 from Lods Street to Tallmadge Avenue.

Completed plans for public improvements on Hickory Street from Memorial Parkway to 1000' south.

Completed plans for the South Arlington Street Signalization and Resurfacing project for new signals, video detection and closed loop master system from East Market Street to Waterloo Road, and resurfacing from East Exchange Street to Waterloo Road. Construction to occur in 2005.

Completed plans for the Idaho Street et al project the 4th phase of the Kenmore II Neighborhood Development Area. Construction to occur in 2005.

Worked successfully with LeBron James through Nike to construct two new indoor basketball courts at Ed Davis Community Center and Joy Park. Outdoor courts were upgraded at Summit Lake and Prentiss Park.

Completed plans for improvements to support the redevelopment of the Elizabeth Park Homes housing area made possible by a Hope VI grant to AMHA.

Performed a study identify the current conditions of all parks throughout the City.

Worked with Traffic Engineering, Public Works, Planning, and the Wheeling & Lake Erie Railroad to set up a program to replace deteriorated crossings. Construction to take place on the first crossing in 2005.

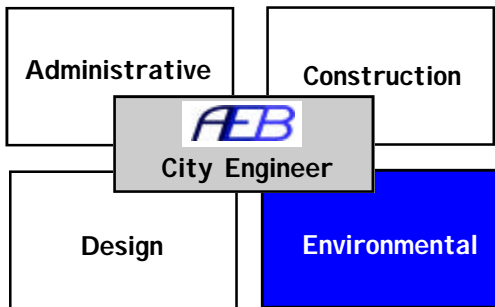
## Training

Field Checking Curb Grades  
Ohio Utilities Protection Service  
Subsurface Utility Engineering  
CAD Standards  
Concrete Pavement Presentation  
Overview of New 2004 Spec Book  
Sports Complex Design  
GIS/GPS Mapping of Akron Light Poles  
ADA Tactile Systems  
Retaining Wall System Demonstration  
Tensor Geogrid presentation  
Soil Nailing

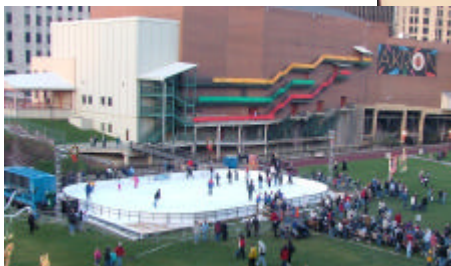
Sexual Harassment Awareness Training  
AutoCAD Training  
CAD Forum  
RPR Seminar  
Family Medical Leave Act  
World of Concrete  
2004 AMATS Annual Meeting  
ODOT District 4 Government Day  
Systems Engineering for ITS and Freeway Management Systems



AutoCAD 2004-2005 Update  
2004 Autodesk University Conference



# Environmental Division



## Core Functions

Detailed Design  
 Project Management  
 Developer Assistance, Coordination  
 and Plan Review  
 Storm Water Management  
 Sanitary Sewer Evaluation Studies  
 Water Pollution Control Station  
 Joint Economic Development Dis-  
 tricts (JEDD)  
 Slope Stability/Erosion Control  
 Brownfields  
 Facilities Planning

Combined Sewer Overflows (CSO)  
 GIS  
 Industrial Park Site Development



Genny Barth Brad Beckert Len Blankenship Jeff Bronowski Scott Davenport  
 Patrick Gsellman Tish Jernigan Mark Pirie Heather Roush Jeff VanNatten



# 2004 Goals

Provided an in-house Project Management/Designer seminar for the Design and Environmental Division staff.

The Storm Water Task Force completed a project/complaint status list (database), file system and storm water Capital Improvement Project (CIP) requests for the 2005 Capital Budget.

The Environmental Division Studies Library was updated and indexed.

Training was provided on tunneling construction and Inflow/Infiltration.



## Major Accomplishments

The City was selected to receive a \$200,000 Brownfields Grant. The grant is for the assessment of petroleum contaminated sites throughout Akron. Successful applications were submitted for Middlebury Phase II (\$187,000) and Morgan Ave. (\$195,000) to the Clean Ohio Assistance Fund. The funds will be used to perform environmental site assessments.

The Army Corps of Engineers approved the funding for conducting preliminary evaluation studies on the Cuyahoga River and the Little Cuyahoga River.

At the end of 2004 the City bid the CSO Rack 40/31 Project. This project entails the construction of a 9.5 million gallon concrete basin in order to reduce combine sewer overflows from CSO Racks 40 and 31. This project is the first part of the CSO Long Term Control Plan. The cost of this project is \$15.1 million. This CSO is the largest single overflow in the Akron system.

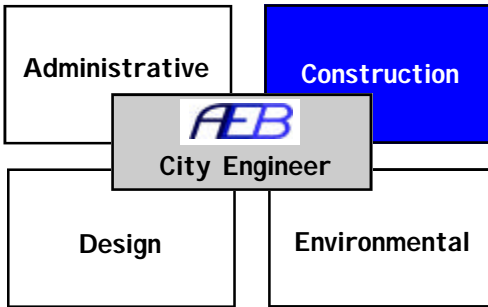
The infrastructure on Ascot Industrial Park Phase II was completed in 2004. Two new manufactures moved into the park in 2004. They were Applied Vision and Ultra Tech.

The first ever Lock 3 Holiday Fest took place in 2004. Engineering assisted in the coordination of the operational functions of the park. We also assisted the Administration as needed to help realize this successful event.

## Training

- AutoCADD Training
- AutoDesk Training
- Construction RPR Seminar
- WCO Presentations
- Tour of CSO Facilities
- WEFTEC 2004
- OWEA Section Meeting and Tours
- Brownfields
- EEO Laws
- Supervisory Training
- Fire Safety
- Arbitration Dispute Resolution
- WEFTEC 2004
- Plan Room Training
- FMLA
- WWTP Tours (Massillon, German Facilities, & NEORS)
- Storm Water and I/I Forum
- AMSA/CSO Partnership
- Collection Systems Workshop
- Ohio EPA Sustainable Development Training
- Wetland Delineation and Permitting
- Cuyahoga River RAP
- ASCE Predicated Bed Scour
- Storm Sewer Systems Design
- Storm Water Detention Basins Design
- Design Div. Training Sessions





# Construction Division



## Core Functions

Construction Project Administration  
 Plan Review  
 Materials Testing Laboratory  
 Bridge Inspection and Inventory  
 Public Involvement



Juan Pablo Ascarrunz Mike Brehob Dave Cooke T. Scott Davenport Karen Dyer Rick Falkenstein Fred Fassnacht  
 Bill Hahn Jim Hall Jason Harris Chuck Hirsch Mike Huber Kerry Jones Jason Kline Chad Kobelt Richard Kovach  
 Bill Magyar Jon Malish Paul McCutcheon Jeff Miller Cory Moke Mark Moore Larry Peaslee Barry Pruitt  
 Jody Richards Adam Staller Bill Stump Mike Watt Jim Weber David Wright MikeWytrzyaszczewski Jason Zajac

# 2004 Goals

Continue the development of a continuing education program for Resident Project Representatives.

Update the Resident Project Representative Source Book.

Conducted the Resident Project Representative Seminar.

Continue to monitor Gypsy Moth infestation and work with the Ohio Department of Agriculture to have the highest levels treated.

Have at least 50 percent of the Resident Project Representatives using hand-held computers for daily reports.

Begin the process of getting our Material Testing Laboratory ASHTO certified.

Develop a means to quantify contractor's performance so as to better estimate construction duration on future project.

## Major Accomplishments

### Transportation

Carnegie Avenue Bridge over Nesmith Lake

Cuyahoga Street/Alberti Court

High Street Viaduct

S. Main Street (Cole Avenue to Firestone Parkway)

Sand Run Road Slope Stabilization

### Parks and Recreation

Canyon Trail Play Equipment

Copley Road Soccer Complex

Ed Davis Community Center Gym Floor

Grace Park Sidewalk and Playground

Hardesty Park Playground

Hardesty Park Walking Path

Joy Park Community Center Gym Floor

Middlebury Run Park Bridge

Reservoir Park Basketball Courts

Summit Lake Park Basketball Court Resurfacing

### Buildings

Beech Street Power Plant Asbestos and Hazardous Waste Abatement

Cascade Deck Concrete Repairs - 2003

High Street/Market Street Parking Deck

Municipal Services Center CSR Facilities

### Utilities

Canfield Road Pump Station - JEDD

Commerce Drive Sewer - JEDD

Harrington Road/Warner Road Water - JEDD

Oak Grove/High Grove Water - JEDD

Pigeon Creek/Copley Road Sewer - JEDD

### Petitioned Streets

Campbell Street

Celtic Street/Edwin Avenue

Honodle Avenue, et al

### Emergency Contracts

Camp Brook Trunk Sewer

Cascade Deck Plaza

Ed Davis Gym Roof

Maiden Lane Alley

Mud Run Truck Sewer

Philip Avenue Sewer

## Training

AutoCADD

Self-Discipline & Emotional Control

RPR Seminar

Concrete

World of Concrete

Asphalt paving

Design-Build

Bridge painting

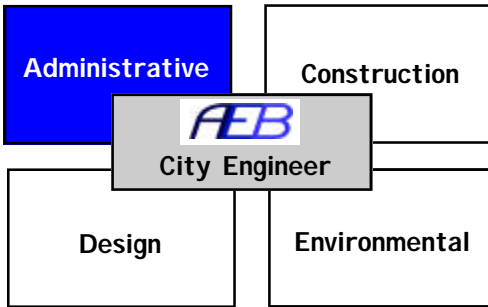
Architectural Projects seminar

Build-A-Form



Bridge inspection





# Administrative Services Division



## Core Functions

Legislation  
 Contract Preparation  
 Street Improvement Petitions  
 Street Dedication Petitions  
 Private Development Agreements  
 Underground Records  
 Central Records Files  
 Service Counter  
 Secretarial Staff  
 Computer Mapping/GIS  
 Resolving Legal Claims  
 Computer Hardware Support  
 Computer Software Support



Wendy Doyle Linda Fallon Alicia Garnett Brent Kelley Kenneth Kostura Marianne Kracker Pam Pollock  
 Joe Prekop Larry Thomas Patty Trudics

## 2004 Goals

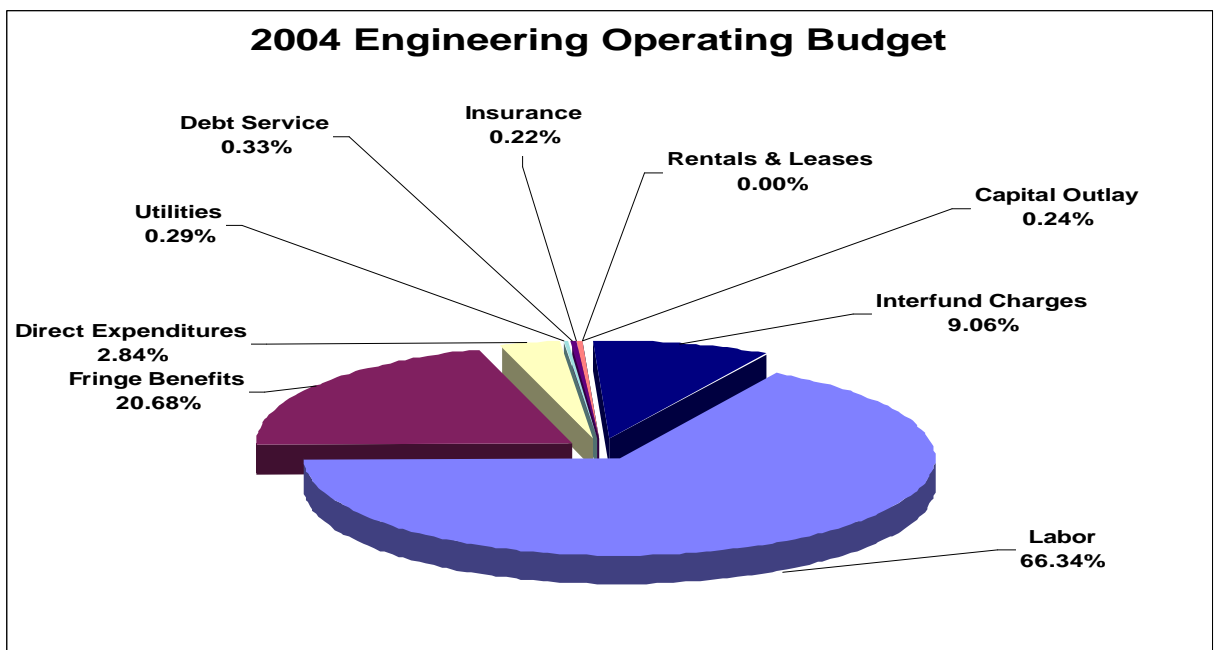
Transferred as-built project information from 67 construction projects to the Sewer Underground Record Maps by the end of the year.

Provided copies of all of the Sewer Underground maps in the JEDD areas to the Sewer Maintenance Division by the end of June.

Reduced paper and filing costs and increased the availability of documents by sending scanned images of correspondence via e-mail to those on the copy list of all correspondence. Scanned correspondence is saved and available from the computer on each employee's desk.

Made available the Notices of Commencement on the Engineering Bureau's web site for the convenience of our customers.

## 2004 Budget

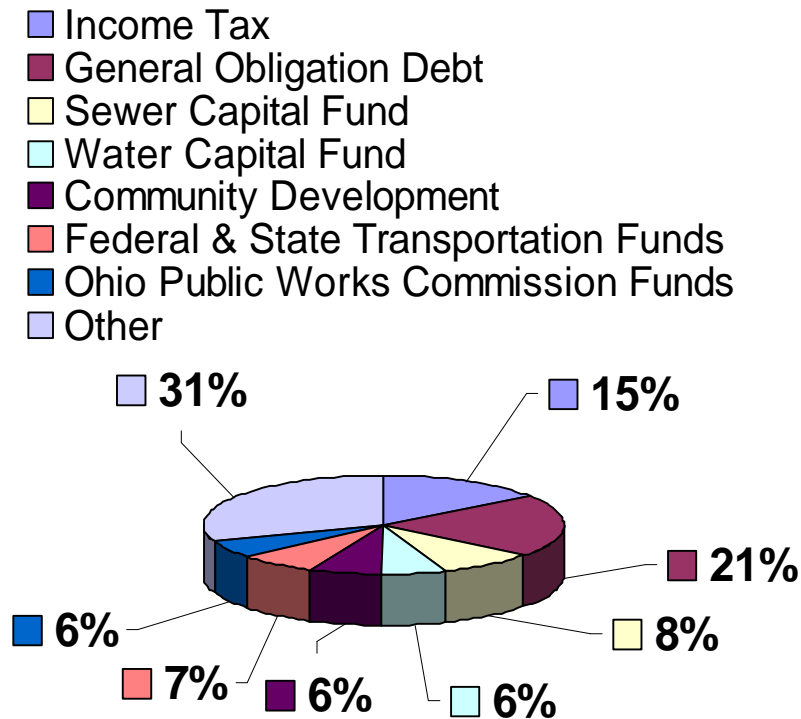


## Training

Morf Software Training	AutoCAD Forum
Secretarial Support	RPR Seminar
Cross-Training	Public Records and Open
FMLA Laws Training	Meeting Laws in Ohio
Labor Relations Training	Seminar
Suspicious Package Training	Front Desk Safety and
	Security
GIS Seminar	
Consultant Contract	
Seminar	
ODOT LPA Project Administration	



### 2004 Sources of Revenue



### 2004 Program Expenditures

